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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/422,208	10/19/1999	JAMES PRICE COFFIN IV	MASIMO.186A	5251

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EXAMINER

LEE, SHUN K

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 11/27/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/422,208

Applicant(s)

COFFIN, JAMES PRICE

Examiner

Shun Lee

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 04 September 2001 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☒ Interview Summary (PTO-413) Paper No(s). 5.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 4 September 2001 have been approved.

Claim Objections

2. Claims 8, 9, 11, 14, 16, 18, 22, and 24 are objected to because of the following informalities:

- (a) claim 8 recites the limitation "remaining molding material" in line 9 (there is insufficient antecedent basis for this limitation in the claim);
- (b) on line 1 in claim 9, "florescent" should probably be --fluorescent--;
- (c) on line 1 in claim 11, "florescent" should probably be --fluorescent--;
- (d) "ultraviolet light" on line 6 of claim 8 and again on line 2 of claim 14 is indefinite and can lead to misinterpretation (if both elements are the same, the later should be identified as --said ultraviolet light--);
- (e) on line 2 in claim 16, "florescent" should probably be --fluorescent--;
- (f) on line 2 in claim 18, "florescent" should probably be --fluorescent--;
- (g) on line 2 in claim 22, "florescent" should probably be --fluorescent--;
- (h) on line 2 in claim 24, "florescent" should probably be --fluorescent--; and
- (i) claim 24 recites the limitation "the flowable" in line 1 (there is insufficient antecedent basis for this limitation in the claim).

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Neeffe (US 4,632,773) in view of Shibata *et al.* (US 4,236,181).

In regard to claim 7, Neeffe discloses a method of testing a substantially transparent product comprising:

- (a) incorporating fluorescent colorant with a product (column 2, lines 5-7); and
- (b) exposing the product to ultraviolet light (column 2, lines 22-27).

Neeffe also teach (column 2, lines 22-27) that the emitted radiation from the product is detectible as a color in the visible wavelength region. The method of Neeffe lacks a step of examining the product with an optical testing device which is responsive to the fluorescent colorant when exposed to ultraviolet light. Shibata *et al.* teach examining a product with an optical testing device (see Fig. 1; column 1, lines 15-18) which is responsive to the luminance (defined¹ as "the condition or quality of being luminous or emitting light, especially emitting self-generated light") from a product (column 7, lines 3-8) in order to determine if there is incomplete separation of the molded article from the injection mold (column 1, lines 8-18). Therefore it would have been obvious to one

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having ordinary skill in the art to provide a step of examining the product with an optical testing device which is responsive to luminance of the fluorescent colorant when exposed to ultraviolet light in the method of Neeffe, in order to determine if there is incomplete separation of the molded article from the injection mold as taught by Shibata *et al.*

5. Claims 8-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hill *et al.* (US 5,656,210) in view of Neeffe (US 4,632,773) and Shibata *et al.* (US 4,236,181).

In regard to claims 8, 12, and 13, Hill *et al.* disclose (column 2, lines 54-59) fabrication by RIM (*i.e.*, injection molding) of IPN (*i.e.*, interpenetrating polymer network) material (column 2, line 34 to column 3, line 12). Hill *et al.* also teach it is known in the art (as exemplified by Neeffe; column 2, line 66 to column 3, line 3) to incorporate a fluorescent colored pigment with the IPN material in order to obtain identifiable lens material. Hill *et al.* further teach steps of injecting molding material into a mold to create a workpiece (column 12, lines 3-9), releasing the mold, and removing the remaining molding material (column 13, lines 60-63). The method of Hill *et al.* lacks a step of detecting remaining molding material in at least a portion of the mold. Shibata *et al.* teach examining a product with an optical testing device (see Fig. 1; column 1, lines 15-18) which is responsive to the luminance (defined¹ as "the condition or quality of being luminous or emitting light, especially emitting self-generated light") from a product (column 7, lines 3-8) in order to determine if there is incomplete separation of the molded article from the injection mold (column 1, lines 8-18). Therefore it would have

been obvious to one having ordinary skill in the art to provide a step of directing ultraviolet light to at least a portion of the mold and detecting luminance from fluorescent colorant of remaining molding material in the method of Hill *et al.*, in order to determine if there is incomplete separation of the molded article from the injection mold (*i.e.*, that the remaining molding material comprises either the workpiece or portions of the workpiece) as taught by Shibata *et al.*

In regard to claim **14** which is dependent on claim 8, Hill *et al.* also disclose that Neefe teaches inspection of a workpiece containing a fluorescent colorant (column 2, line 66 to column 3, line 3). The method of Hill *et al.* lacks an explicit description of directing ultraviolet light onto the workpiece containing a fluorescent colorant. Neefe teaches that luminance from fluorescent colorant occurs by directing ultraviolet light onto the workpiece (column 2, lines 22-27). Therefore it would have been obvious to one having ordinary skill in the art to provide a step of directing ultraviolet light to the workpiece in the method of Hill *et al.*, in order to inspect the injection molding material.

In regard to claims **15**, **19**, and **20**, Hill *et al.* disclose (column 2, lines 54-59) fabrication by RIM (*i.e.*, injection molding) of IPN (*i.e.*, interpenetrating polymer network) material (column 2, line 34 to column 3, line 12). Hill *et al.* also teach it is known in the art (as exemplified by Neefe; column 2, line 66 to column 3, line 3) to incorporate a fluorescent colored pigment with the IPN material in order to obtain identifiable lens material. Hill *et al.* further teach steps of injecting molding material into a mold to create a workpiece (column 12, lines 3-9), releasing the mold, and removing the remaining molding material (column 13, lines 60-63). The system of Hill *et al.* lacks a step of

detecting any leftover flowable material within the mold. Shibata *et al.* teach examining a product with an optical testing device (see Fig. 1; column 1, lines 15-18) which is responsive to the luminance (defined¹ as "the condition or quality of being luminous or emitting light, especially emitting self-generated light") from a product (column 7, lines 3-8) in order to determine if there is incomplete separation of the molded article from the injection mold (column 1, lines 8-18). Therefore it would have been obvious to one having ordinary skill in the art to provide detection of luminance from fluorescent colorant of leftover flowable material in the mold in the system of Hill *et al.*, in order to determine if there is incomplete separation of the molded article from the injection mold (*i.e.*, that the leftover flowable material comprises either the workpiece or portions of the workpiece) as taught by Shibata *et al.*

In regard to claim 21, Hill *et al.* disclose (column 2, lines 54-59) fabrication by RIM (*i.e.*, injection molding) of IPN (*i.e.*, interpenetrating polymer network) material (column 2, line 34 to column 3, line 12). Hill *et al.* also teach it is known in the art (as exemplified by Neefe; column 2, line 66 to column 3, line 3) to incorporate a fluorescent colored pigment with the IPN material in order to obtain identifiable lens material. Hill *et al.* also disclose that Neefe teaches inspection of a workpiece containing a fluorescent colorant (column 2, line 66 to column 3, line 3). Neefe teaches directing a first light of a wavelength not visible to humans toward a workpiece with sufficient energy to cause the fluorescent colorant in the workpiece to emit a second light of a wavelength visible to humans (column 2, lines 22-27). The system of Hill *et al.* lacks an inspection device which inspects the workpiece by detecting the second light.

Shibata *et al.* teach examining a product with an optical testing device (see Fig. 1; column 1, lines 15-18) which is responsive to the luminance (defined¹ as "the condition or quality of being luminous or emitting light, especially emitting self-generated light") from a product (column 7, lines 3-8) in order to determine if there is incomplete separation of the molded article from the injection mold (column 1, lines 8-18).

Therefore it would have been obvious to one having ordinary skill in the art to provide an inspection device responsive to the luminance which comprises of the second light from the fluorescent colorant in the system of Hill *et al.*, in order to determine if there is incomplete separation of the molded article from the injection mold as taught by Shibata *et al.*

In regard to claims 9 and 11 (which are dependent on claim 8), claims 16 and 18 (which are dependent on claim 15), and claims 22 and 24 (which are dependent on claim 21), Hill *et al.* also disclose that the IPN is formulated to obtain substantially transparent material (column 6, lines 5-18). Hill *et al.* also teach it is known in the art (as exemplified by Neeffe; column 2, line 66 to column 3, line 3) to incorporate a fluorescent colored pigment with the IPN material in order to obtain identifiable lens material. The method and system of Hill *et al.* lacks an explicit description that the fluorescent colorant is substantially transparent. Neeffe teach that the fluorescent colorant does not change the color of the material (column 2, lines 58-61). Therefore it would have been obvious to one having ordinary skill in the art to provide a substantially transparent fluorescent colorant in the method and system of Hill *et al.*, in order that the color of the material be unchanged.

In regard to claim **10** (which is dependent on claim 8), claim **17** (which is dependent on claim 15), and claim **23** (which is dependent on claim 21), Hill *et al.* also disclose that the IPN is formulated to obtain substantially transparent material (column 6, lines 5-18).

Response to Arguments


6. Applicant's arguments with respect to claim 7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shun Lee whose telephone number is (703) 308-4860. The examiner can normally be reached on Tuesday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seungsook Ham can be reached on (703) 308-4090. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


CONSTANTINE HANNAHER
PRIMARY EXAMINER
GROUP ART UNIT 2878

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November 8, 2001